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ABSTRACT

A study was conducted to evaluate the effect of integrating advanced placement licensed vocational nursing (APLVN) students with generic students in the second year of the registered nursing program at Long Beach City College. It was hypothesized that the academic achievement of the APLVN students who were taught as a separate group for the first semester of the second year of the nursing program would be higher than that of the APLVN students who were immediately integrated with the generic students. The sample was drawn from a population that included all of the licensed vocational nurses who were given advanced placement into the first course of the second year of the registered nursing program at Long Beach City College in 1983 and 1984. The sample consisted of 17 matched pairs from the 1983 and 1984 years. The matched pair t-test was used to determine if the group that was taught separately did significantly better on the theory examinations for the first four courses than the group that was integrated with the generic students. The t-test revealed that there was no significant difference at the .05 level in the two groups and the null hypothesis was accepted. It was recommended that the practice of integrating advanced placement licensed vocational nursing students with generic students from the beginning of the second year of the registered nursing program be continued. Recommendations for further research were also made. (Author/KC)

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THE EFFECTS UPON ADVANCED PLACEMENT LICENSED VOCATIONAL NURSING STUDENTS WHEN INTEGRATED WITH GENERIC STUDENTS IN THE SECOND YEAR OF A REGISTERED NURSING PROGRAM

Applied Educational Research
and Evaluation Seminar

by

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A Practicum presented to Nova University in partial
fulfillment of the requirements for the
degree of Doctor of Education

Nova University

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ABSTRACT

THE EFFECTS UPON ADVANCED PLACEMENT LICENSED VOCATIONAL NURSING STUDENTS WHEN INTEGRATED WITH GENERIC STUDENTS IN THE SECOND YEAR OF A REGISTERED NURSING PROGRAM

Marilyn Balint, R.N., M.S.N.

This ex-post facto, quasi-experimental study was done to evaluate the effect of integrating advanced placement licensed vocational nursing (APLVN) students with generic students in the second year of the registered nursing program at Long Beach City College. It was hypothesized that the academic achievement of the APLVN students who were taught as a separate group for the first semester of the second year of the nursing program would be higher than that of the APLVN students who were immediately integrated with the generic students. The sample was drawn from a population that included all of the licensed vocational nurses who were given advanced placement into the first course of the second year of the registered nursing program at Long Beach City college in 1983 and 1984. The APLVN students from the 1983 class were matched with the APLVN students from the 1984 class by their score on the department admission examination. Any student that dropped out of the program during the first semester and the student that they were paired with were eliminated from the sample. The sample consisted of 17 matched pairs. The matched pair t test was used to

determine if the group that was taught separately did significantly better on the theory examinations for the first four courses that the group that was integrated with the generic students. The t test revealed that there was no significant difference at the .05 level in the two groups and the null hypothesis was accepted.

It was recommended that the practice of integrating advanced placement licensed vocational nursing students with generic students from the beginning of the second year of the registered nursing program be continued. The effect of integrating the APLVN student with the generic student should be studied using a longitudinal approach. Further research should be conducted to determine if there is a positive correlation between grades on theory testing and performance in clinical practice. The study should be replicated with a larger sample in another setting.

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Chapter 1

INTRODUCTION

Underlying Problem

The faculty at Long Beach City College believe in the career ladder in nursing and have been actively involved in assisting the licensed vocational nurse (LVN) to seek advanced placement in the registered nursing program for career mobility through RN preparation at the Associate Degree level. The vocational nurses who return to college to become registered nurses have been identified by the nursing faculty as having special needs and until 1984 were taught as a separate group for the entire first semester of the second year. During the 1984-1985 school year the advanced placement licensed vocational nurses (APLVN) admitted to the nursing program were integrated with the basic students from the time of their admission to the program. Combining the advanced placement licensed vocational nursing students and the basic or generic students was a result of a curriculum change in response to financial cutbacks at the college and was a cause for concern among members of the nursing faculty who feel that the APLVN retention rate may drop as a result of this change.

Purpose of the Investigation

The purpose of this investigation was to determine whether advanced placement LVN students who were taught as a separate group for the first semester of the second year got higher grades on theory examinations than advanced placement LVN students who were taught during the first semester of the second year with generic nursing students.

Independent and Dependent Variable

The independent variable, the variable causing a change in the observed results, was the setting in which the APLVN nursing students were placed. The dependent variable, the measurable response, was the academic achievement of the students as identified by the scores they earned on the theory examinations for the first four courses of the second year, Nursing 43, 44A, 44B, and 44C.

Research Hypothesis

It was hypothesized that the academic achievement of the APLVN students who were taught as a separate group for the first semester of the second year of the nursing program would be higher than that of the APLVN students who were immediately integrated with the generic students.

This was an ex-post facto, quasi-experimental study in which the scores of the APLVN students on the department admission examination were used to pair the members of the 1983 and 1984 classes. Once the groups were paired, their scores were traced for the first four courses of the second year to determine if the group that was taught separately earned higher scores than the group that was integrated.

Chapter 2

BACKGROUND AND SIGNIFICANCE

Background

There are two types of students in the registered nursing program at Long Beach City College. The first type is the basic or generic student. This student goes through the two years of the nursing program without prior education in nursing. The second type of student is the advanced placement licensed vocational nurse (APLVN) who enters at the beginning of the second year of the program. The APLVN student has completed one year of nursing education culminating in the title of Vocational Nurse at some time prior to applying for advanced placement in the registered nursing program. This year of nursing education may have been completed years ago or just prior to admission. To qualify, the APLVN must hold a valid vocational nursing license.

Traditionally, many of the APLVN students who enter the registered nursing program are identified by the nursing faculty at Long Beach City College as being at a disadvantage. Although the students have completed one year of nursing, this has not proven to be the equivalent of the first year of the registered nursing program at Long Beach City College. Some, but not all, of the

APLVN's have work experience in the field of nursing. Some have been out of school and out of the work-place for many years. The nursing faculty found that teaching the APLVN students as a separate group for the first semester allowed them to adjust more smoothly to the expectations of the program and to the life of a college student. The faculty feels that there is a definite advantage in integrating the APLVN with the generic student in the second semester because each group serves as a role model for the other.

During the 1984-1985 school year, the APLVN students were integrated with the generic students from the beginning of the second year because of a change in the curriculum which eliminated the summer session of the program. The summer session served as the first course for the APLVN students. It was during this course that the APLVN students were oriented to the school and to the expectations of the program. The financial restraints which caused the elimination of the summer session also eliminated this adjustment period for the APLVN students.

Significance to the Institution

Long Beach City College is a two year college that serves a large metropolitan area. The administrators of the major hospitals in the area have publicly stated that

they are interested in hiring only registered nurses to work in their facilities. This development has motivated many vocational nurses to move up the career ladder by becoming registered nurses. Many potential registered nursing students who find that there is a wait to enter a registered nursing program will enter a vocational nursing program with the intent of applying to a registered nursing program upon completion.

Advanced placement licensed vocational nurses currently make up approximately one-fourth of the graduating class in the registered nursing program at Long Beach City College. It is expected that vocational nurses will continue to apply to the college for advanced placement into the registered nursing program. This study was undertaken to identify how to best meet the needs of this segment of the community.

Relationship to the Seminar

This practicum was appropriate to the Applied Educational Research and Evaluation Seminar because a quasi-experimental, ex-post facto experiment was conducted utilizing the concepts learned in the seminar. In order to complete the practicum, the concepts of research and evaluation were applied and so the practicum was an

effective and valuable experience which did reinforce learning.

Review of the Literature

The objectives of the review of the literature were: 1) to support the need for an LVN to RN program; 2) to discover what, if anything, is different about the LVN who comes back to school to become an RN, and; 3) to support the case for homogeneous grouping of APLVN students.

At the present time it is possible to have a career in nursing after attending school for one, two, three, or four years. After one year of nursing education the graduates take the vocational nursing examination and, if they pass, are entitled to call themselves vocational nurses. After two, three or four years of nursing education all graduates take the National State Board Test Pool Examination and, if they pass, are entitled to call themselves registered nurses.

There is a movement within nursing to consolidate the present educational structure for entry level into practice to baccalaureate and associate degree programs. This movement could eliminate both diploma schools and vocational/practical nursing schools and is pressuring

nurses who have graduated from these programs to improve their educational preparation.

Nursing has been moving toward this goal since the late 1960's with the publication of the "Position Paper" by the American Nurses' Association. That document states the professional nursing association's position concerning the education necessary for the practice of nursing (Position Paper:1965). Basically, the position paper calls for the baccalaureate prepared nurse to be the entry level professional nurse, and the associate degree prepared nurse to be the technical or bedside nurse. The current target date for action on the "entry into practice" issue is 1985.

Although opposed to the entry into practice issue, which could eliminate the vocational nurse, Williams (1983) acknowledges that "hospitals have moved toward primary care and all registered nurse staff" to handle the higher patient acuity that is seen on most nursing units today. "LVN's are being let go, to be replaced by RN's (Williams 1983:16)." The National Commission on Nursing Issues has stated that "the transition of nursing education into the mainstream of higher education in the U.S. has been stimulated by increasingly complex nursing care requirements (Williams 1983:17)."

Salaries for licensed vocational nurses are significantly lower than salaries for registered nurses

and are often a motivating force in career mobility. "In addition, societal expectations for upward mobility add to the real need of many licensed vocational nurses to achieve registered nurse levels (Mulholland 1981:7)." Peters and Koury, (1984) found that 44.5% of the LVN's surveyed planned to go on to become registered nurses. The modal sample member of the group surveyed was a licensed vocational nurse, over 40, female, married, Caucasian, who had completed no educational work beyond the LVN (Peters and Koury 1984).

Holloway (1973) found that there is ample documentation for upward mobility of LVN's to RN. She found that it is possible to give credit to the licensed vocational nurse for practical and educational experience and still produce a qualified registered nurse. In an effort to facilitate the transition of LVN's into a program to become registered nurses at Brookdale Community College (Mulholland:1981), the content of the seminars was built upon prior learning and filled in the identified gaps in the two levels of education. The program at Chicago City College was also designed to build on the LVN's existing skills according to Holloway (1973).

Holloway (1973) states that training licensed vocational nurses to become registered nurses would not only be a source of recruitment but also a source for committed, stable employees. Hospital administrators in

the Long Beach area agree and have stated that they are very interested in having licensed vocational nurses advance up the career ladder. The administrators have found these nurses to be committed to nursing, having experienced the role of a nurse worker, and less subject to "burn out" than generic graduates. Advanced placement licensed vocational nurses who graduate from registered nursing programs stay in nursing longer and are cost effective according to these hospital administrators (Advisory Committee Meetings).

Whatever the reason for the LVN's return to college, Holloway (1973) found that institutional support and the student's personal motivation were the determining factors in achieving success. "The personal interest of someone who is concerned with the students and is available to them to solve problems, academic, personal, economic, may be of greater value than any other single factor (Holloway 1973:72)."

The consensus of the literature is that APLVN students are different. Efforts must be made to recognize their special needs and to build upon their existing skills. It is not so clear how this is to be accomplished although all of the studies reviewed indicated that the APLVN's were taught separately so that these special needs could be met.

Related research addresses the benefits and disadvantages of integrating students by abilities or needs. Dar and Resh (1981) examined the effects of segregating students with different levels of personal learning resources, scholastic ability and motivation in homogeneous classes of "high" and "low" ability, and in heterogeneous classes. They found that there was no learning advantage in homogeneous classes; a slight advantage was observed in heterogeneity, concentrated mainly in the lower half of the class distribution.

Shavelson (1982) found that groups, and not the individuals within them, serve as the basis for instructional planning when students are segregated. According to Shavelson (1982:129),

> there are serious limitations attributable to grouping students on status variables: 1) Groups may serve as anchors to student progress; (2) Groups mask large individual differences among students within each group; and (3) Groups lead to prescriptions for instructional treatments and may severely limit the range of alternative groupings and treatments tried in the classroom.

Cotton and Savard (1981) found that high-ability students should be taught with one another, and that lower-ability students should be taught with higher-ability students indicating that the lower-ability students rise to the level of the high-ability students.

Cowels and others (1974) reviewed research into ability groupings and reports that students were aware of

grouping, even in heterogeneous classes, and that peer acceptance was greater in heterogeneous classes.

Butner (1974) found that while ability grouping alone may not necessarily promote a more positive self concept for low achievers, homogeneous grouping appears to have a positive influence on the student's attitude toward school.

Laughlin (1978) found that when college students, ranked as high, medium, or low ability were assigned to homogeneous or mixed-ability group, performance proved proportional to the number of high ability group members.

In a study of junior college students to assess the effect upon academic performance of the assignment of roommates with varying high school academic records, Blai (1971) found a significantly higher level of academic achievement could be attained by average and below average achievers by assigning them as roommates to above average academic achievers.

The literature supports the need for the advanced placement LVN to RN program. The literature also indicates that LVN's who comes back to school are different and require a program that will recognize these differences and build on the special skills and experiences that these students bring with them.

It is less clear whether the APLVN students should be maintained in a homogeneous setting or integrated with

the generic students. Much of the literature points out that low-ability students benefit from integration with high-ability students and many of the LVN's who return to school have a low self-concept and voice doubts about being able to keep up with the younger students.

The review of the literature supports the need for programs to assist the licensed vocational nurses to attain the level of registered nurse and for research into the practice of placing these students in a homogeneous versus heterogeneous setting. It was exciting to conduct a study which will help to determine if the present course of action at Long Beach City College is the most beneficial to these students.

Chapter 3

PROCEDURES

This investigation was undertaken to determine the effect of integrating advanced placement licensed vocational nurses with generic students in the second year of a registered nursing program.

Sample Selection

The sample was selected from a population that included all of the licensed vocational nurses who passed the department admission examination with a score of 75% or more and who were given advanced placement into the first course of the second year of the registered nursing program, Nursing 43, in the summer of 1983 or 1984. The population consisted of 59 APLVN students, 34 from the 1983 class and 25 from the 1984 class. The group of APLVN's who entered the registered nursing program in 1983 and who were taught as a separate group were called Group A. The group of APLVN's who entered the program in 1984 and who were integrated with the generic students were called Group B. All scores on the department admission examination for both Groups A and B were converted to percentages and listed from the highest to the lowest.

The mean on the department admission examination was 79.66 for Group A and 78.59 for Group B.

The students from Group A were paired with the students from Group B by scores earned on the department admission examination. An exact match was made on 17 of 21 pairs. It was necessary to adjust by one point for the four remaining pairs. This adjustment was made in favor of Group A two times and in favor of Group B two times. In some cases it was necessary to discard scores when there were too many of the same score in one group to match with the other group. This was done by randomly selecting the number of a given score needed from those available. To accomplish this the names of all the candidates with the desired score were put on individual slips of paper and sealed. The number needed was then blindly selected from those available.

The matched pairs were then identified by number with the highest scoring pair given the number one. A list was made showing the pairs numbered one through twenty-one. The scores for each member of the pair, identified as Group A or Group B, for the admission test and the percentage score earned for each of the four courses of the first semester of the second year of the registered nursing program were recorded. As the APLVN students progressed through the first semester of the second year, several students dropped out. These students

and the student that they were paired with were eliminated from the sample, thus reducing the number of pairs from twenty-one to seventeen.

Research Question

The research question addressed was: "Is there a difference in the academic achievement of the APLVN students who were taught as a separate group for the first semester of the second year of the registered nursing program and the APLVN students who were immediately integrated with the generic students?"

Treatment of Data

The one-tailed matched pair t test, a parametric statistical test was used in this ex-post facto, quasi-experimental investigation to determine if one group of students got higher scores on theory examinations than the other group of students when taught in a different setting during the first semester of the second year of the program. The t test was appropriate because of the relatively small sample size of the two groups that were chosen from populations with normal distributions for the variable under consideration. Interval data in the form of test scores was examined. The .05 level of significance was accepted because this was a search for

all promising leads. The critical t value on a one-tailed test at 32 degrees of freedom is 1.65 (Isaac and Michael 1971).

Null Hypothesis

The null hypothesis tested in this study was: There is no significant difference in grades earned on theory examinations between advanced placement licensed vocational nursing students who were taught as a separate group for the first semester of the second year and advanced placement licensed vocational nursing students who were taught during the first semester of the second year with generic students.

Alternative Hypotheses

The alternative hypothesis was: The group of advanced placement licensed vocational nursing students who were taught as a separate group for the first semester of the second year will get higher scores on theory examinations than the group of advanced placement licensed vocational nursing students who were taught with the generic students.

Basic Assumptions

Basic assumptions pertinent to the study were: 1) the sample of subjects chosen for the study was representative of the general population of advanced placement licensed vocational nursing students; 2) success on theory examinations is useful in evaluating success in nursing, and; 3) the individuals in the two groups of students were matched according to ability as measured on the department admission examination.

Limitations of the Study

The factors that contribute to the limitations of the study were: 1) The sample was limited to those students who completed the curriculum of the first semester of the second year of the nursing program at Long Beach City College in 1983 and 1984; 2) variables such as motivation can not be controlled, and; 3) Ex-post facto studies result in loss of some control because of the time factor.

Definition of Terms

The following terms are used in this practicum:

Long Beach City College. A California community college that offers open access to low cost,

comprehensive, instructional programs in higher education that are responsive to the diverse needs of the community.

Generic Student. Refers to the student who enrolls in a major starting with the first required course. This student does not have sufficient previous preparation to qualify for advanced placement.

Advanced Placement Licensed Vocational Nurse (APLVN). A nursing student who holds a license in vocational nursing and who has been given advanced placement in the registered nursing program.

Module. A term used synonymously with course in the registered nursing program.

Chapter 4

FINDINGS

The test scores of seventeen matched pairs of advanced placement licensed vocational nursing students were used to compare their progress in the first course of the second year, Nursing 43. The mean score of Group A was 84.647 and of Group B, 88.882. The calculated t value was -2.90 and the critical t value was 1.65 (see Table 1). The null hypothesis was rejected for this course at the .05 level of significance with 32 degrees of freedom. The students in Group B who were integrated with the generic students did significantly different than the students in Group A who were taught as a separate group for Nursing 43.

Table 1

A Comparison of Test Scores Between APLVN Students Who Were Not Integrated (Group A) and APLVN Students Who Were Integrated (Group B) in Nursing 43

Nsg 43	n	mean	SD	t value*
Group A	17	84.647	4.485	-2.900
Group B	17	88.882	4.014	

*Critical t value = 1.65

The test scores of seventeen matched pairs of advanced placement licensed vocational nursing students were used to compare their progress in the second course of the second year, Nursing 44B. The mean score of Group A was 83.059 and of Group B, 85.000. The calculated t value was -1.225 and the critical t value was 1.65 (see Table 2). The null hypothesis was accepted for this course at the .05 level of significance with 32 degrees of freedom. There was no significant difference in the scores of the students in Group A who were taught as a separate group and the scores of students in Group B who were integrated with the generic students for Nursing 44B.

Table 2

A Comparison of Test Scores Between APLVN Students Who Were Not Integrated (Group A) and APLVN Students Who Were Integrated (Group B) in Nursing 44B

Nsg 44B	n	mean	SD	t value*
Group A	17	83.059	3.897	-1.225
Group B	17	85.000	5.244	

*Critical t value = 1.65

The test scores of seventeen matched pairs of advanced placement licensed vocational nursing students were used to compare their progress in the third course of

the second year, Nursing 44A. The mean score of Group A was 86.941 and of Group B, 86.824. The calculated t value was 0.075 and the critical t value was 1.65 (see Table 3). The null hypothesis was accepted for this course at the .05 level of significance with 32 degrees of freedom. There was no significant difference in the scores of the students in Group A who were taught as a separate group and the scores of the students in Group B who were integrated with the generic students for Nursing 44A.

Table 3

A Comparison of Test Scores Between APLVN Students Who Were Not Integrated (Group A) and APLVN Students Who Were Integrated (Group B) in Nursing 44A

Nsg 44A	n	mean	SD	t value*
Group A	17	86.941	4.145	0.075
Group B	17	86.824	4.902	

*Critical t value = 1.65

The test scores of seventeen matched pairs of advanced placement licensed vocational nursing students were used to compare their progress in the fourth course of the second year, Nursing 44C. The mean score of Group A was 85.706 and of Group B, 87.294. The calculated t value was -1.066 and the critical t value was 1.65 (see

Table 4). The null hypothesis was accepted for this course at the .05 level of significance with 32 degrees of freedom. There was no significant difference in the scores of the students in Group A who were taught as a separate group and the scores of students in Group B who were integrated with the generic students for Nursing 44C.

Table 4

A Comparison of Test Scores Between APLVN Students Who Were Not Integrated (Group A) and APLVN Students Who Were Integrated (Group B) in Nursing 44C

Nsg 44C	n	mean	SD	t value*
Group A	17	85.706	3.917	-1.066
Group B	17	87.294	4.740	

*Critical t value = 1.65

The test scores of seventeen matched pairs of advanced placement licensed vocational nursing students were used to compare their progress at the end of the first semester of the second year of the registered nursing program. The mean score of the four courses of Group A was 340.353 and of Group B, 348.000. The calculated t value was -1.419 and the critical t value was 1.65 (see Table 5). The null hypothesis was accepted for the semester at the .05 level of significance with 32

degrees of freedom. There was no significant difference in the scores of the students in Group A who were taught as a separate group for the first semester of the program and the scores of the students in Group B who were integrated with the generic students from the beginning of the second year of the program.

Table 5

A Comparison of Test Scores Between APLVN Students Who Were Not Integrated (Group A) and APLVN Students Who Were Integrated (Group B) During the First Semester of the Second Year of the RN Program

Totals	n	mean	SD	t value*
Group A	17	340.353	14.226	-1.419
Group B	17	348.000	17.070	

*Critical t value = 1.65

Although a significant difference was obtained in the first course of the first semester of the second year, no significant difference was obtained in the last three courses of the first semester and no significant difference was obtained in the combined scores for the semester. Therefore the null hypothesis was accepted for the entire testing period.

Chapter 5

DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Discussion

This investigation was conducted to determine the effects of integrating the advanced placement licensed vocational (APLVN) nursing students with the generic students in the second year of the registered nursing program at Long Beach City College. It was hypothesized that advanced placement students returning to school would benefit from being taught as a separate group for the first semester of the second year because it would give them time to adjust to the expectations of the program and allow the instructors to recognize and meet their special needs. In addition, because the advanced placement class is generally smaller than the generic class, it was felt that the instructors would have the opportunity to recognize the special skills and work experiences of these students and provide positive feedback.

The results of this investigation indicate that there was no significant difference in the progress of the advanced placement students as measured by their scores on theory examinations when they are taught as a separate group.

In the first course studied, Nursing 43, Group B, (integrated) received significantly higher scores on the theory examinations than Group A (not integrated). This was the opposite of what was expected. However, there was no significant difference in the scores of Group A and Group B for the three remaining courses, Nursing 44B, Nursing 44A, and Nursing 44C when examined separately. When scores for all of the courses were examined together there was no significant difference in the two groups at the 0.5 level and the null hypothesis was accepted.

It is interesting to note that the results for Nursing 43 demonstrated that the students who were integrated with the generic students did better on theory examinations than students who were taught separately (see Table I). There are several explanations for this result. Nursing 43 was the first course taught in the new curriculum which required that the APLVN student be integrated. Their teachers felt strongly that they had special needs and should be taught separately and may have put forth extra effort to meet their needs in the larger group. This personal interest could have made the difference (Holloway 1973).

Many of the LVNs who return to school have a low self-concept and voice doubt about being able to keep up with the generic student. The teachers tend to agree with this perception. It is possible that the teachers saw the

larger group, which was almost two thirds generic students, as more capable and the APLVN students rose to their expectations. Cotton and Savard (1981) found that the lower-ability students rise to the level of the high-ability students. Laughlin (1978) supports this, indicating that the increase in performance of the group is proportional to the number of high ability students in the group. Dar and Resh (1981) found that a slight advantage was observed in heterogeneous groups, concentrated mainly in the lower half of the class distribution.

Being placed in a heterogeneous group might have assisted the APLVN student to become assimilated into the group faster. Cowels and others (1974) found that peer acceptance was greater in heterogeneous groups. It is possible that the APLVN students were more readily accepted by the generic students in the integrated group and thus the generic students, being familiar with the program, provided the APLVN students with an additional source of support.

There was no attempt to identify the motivation of the APLVN students in this study other than to assume that their presence implied that they were highly motivated. Holloway (1973) found that the student's personal motivation may be of greater value than any other single

factor and this should be taken into consideration in any future study.

The maturity level of the students was not addressed in this study and may prove to be an important factor in determining student success rate. Any future study should take the maturity level of the student into consideration.

The consensus of the literature reviewed involving APLVN students was that they are different and that efforts must be made to recognize their special needs and to build upon their existing skills. All of the research reviewed indicated that the APLVN students were taught separately so that these special needs could be met but this investigation did not support this commonly held idea.

Implications

This study has implications for the nursing faculty at Long Beach City College in that they have expressed concern for the success of the advanced placement licensed vocational nursing student who is integrated with the generic student. The study indicated that advanced placement licensed vocational nursing students who are integrated do just as well on theory examinations as advanced placement licensed vocational

nursing students who are taught as a separate group. The faculty must now concentrate on recognizing the special needs and existing skills of the APLVN student within the larger group while making use of data which will increase the success rate of the group rather than on campaigning for a return to a system that is not beneficial to the student.

Recommendations

The following recommendations are made based upon the findings of this investigation.

1. The practice of integrating APLVN nursing students with generic students from the beginning of the second year of the registered nursing program should be be continued. The data demonstrates that there is no significant difference in the progress of the advanced placement students when they are taught as a separate group. There is evidence that being placed in a heterogeneous group may even be to their advantage.

2. The effect of integrating the APLVN nursing student with the generic student should be studied using a longitudinal approach. The results of studying the grades of these students over a longer period of time might demonstrate a trend that would be useful in assisting both groups to be more successful.

3. Continued efforts should be made to meet the special needs of the APLVN students and to recognize their special skills and work experiences.

4. Further research should be conducted to determine if there is a positive correlation between grades on theory testing and performance in clinical practice and to determine if good theory scores make a good nurse. It was assumed that success in the program can be measured by good test scores. The student's clinical practice was not taken into consideration nor was the correlation of grades and clinical practice.

5. The study should be replicated with a larger sample in another setting.

Long Beach City College's nursing program can be improved if the faculty addresses the special needs and work experiences of the APLVN students who make up approximately one-fourth of each graduating class. The improvement will be felt directly by the graduates and indirectly by the employing agencies. Graduate and agency satisfaction cannot be overlooked in this time of educational accountability.

BIBLIOGRAPHY

Blai, Boris, Jr. "Roommate Impact Upon Academic Performance." Bethesda, Md.: ERIC Document Reproduction Service, ED052228. 1971.

Butner, Lynda . "A Comparison of Self Concept and School Attitude of Third Grade Low Achievers in Homogeneous Versus Heterogeneous Groupings." Bethesda, Md. : ERIC Document Reproduction Service, ED115385. 1974.

Cotton, Kathleen and W. G. Savard. "Instructional Grouping: Ability Grouping. Research on School Effectiveness Project: Topic Summary Report. Bethesda, Md.: Eric Document Reproduction Service, ED214704. 1981.

Cowles, Milly and others. "Comparative Study of Certain Social and School Adjustments of Children in Two Grouping Plans." Bethesda, Md. : ERIC Document Reproduction Service, ED136961. 1974.

Dar, Yehezkel and Nura Resh. Homogeneity and Heterogeneity in Education: Interaction Between Personal Resources and the Learning Environment in the Effect on Scholastic Achievement. Bethesda, Md.: ERIC Document Reproduction Service, ED220543. 1981.

Francis, B. "LPN Viewpoint: Should You Climb the Ladder?" Journal of Nursing Care. 1982 Mar. 15(3).

Gailey, Marguerite. "What does the Future Hold for the LP/LVN." Journal of Practical Nursing, 32(9):35-37. Sept. 1982.

Holloway, Sally. "Upgrading Licensed Practical Nurse to Registered Nurse Program." Bethesda, Md. : ERIC Document Reproduction Service, ED206884, 1973.

Isaac, Stephen and William B. Michael. Handbook in Research and Evaluation. San Diego, California: E.D.I.T.S., 1971.

Justman, Joseph. "Ability Grouping--What Good Is It." Bethesda, Md. : ERIC Document Reproduction Service, ED013842. 1967.

Lane, W. L. "Responsibilities of the LPN." Journal of Practical Nursing, 32(8):34. Sept. 1982.

Lenburg, C. B. "LP/VN to RN: A program designed for you." Journal of Practical Nursing, 1979 Nov. 29(11). p 22.

Mulholland, Marion A. "Nursing Transition: A Process to Facilitate Career Mobility." Bethesda, Md. : ERIC Document Reproduction Service, ED206884, 1981.

Peters, Faye L. and Robert M. Koury. "The Demand for Associate Degree Nursing Education in Central Indiana: A Study of the Personal, Academic, and Professional Characteristics of Licensed Practical Nurses. Bethesda, Md.: ERIC Document Reproduction Service, ED246931. 1984

Shavelson, Richard J. "One Psychologist's View of Teachers' Decisions about Grouping Students." Bethesda, Md.: ERIC Document Reproduction Service, ED215975, 1982.

Splane, Stephanie I. and Richard I. Kushner. "The Individual Differences Model for the Design of Courses in General Psychology." Bethesda, Md.: ERIC Document Reproduction Service, ED195481. 1978.

Steel, J. E. "Steel Testifies Before BRN on Expanded Role, Continuing Education, and LPN Definition." Mass. Nurse. 1979. Nov. 48(11). p 3.

Waltman, Bill. "Ability Grouping: Separate and Unequal." Bethesda, Md. : ERIC Document Reproduction Services, ED219087. 1979.

Williams J. "Surviving 1985: The Role of the LPN in the Health Care System." Journal of Practical Nursing. 1983 Sept-Oct. 33(8). p 16.

"Nursing Duties: Your Responses to JPN's Fifth Annual Survey on Nurse Practice Acts and Nursing Duties Performed by Licensed Practical Nurses." Journal of Practical Nursing. 1982 Nov-Dec. 32(10). pp 22-32.